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In Time of War

What should be the attitude of scientists in time of war and what roles should they attempt to play? In time of peace they live orderly lives in a relatively stable world. They are guardians and transmitters of the accumulated knowledge and wisdom of their predecessors, and explorers of the hitherto unknown. Normally they are concerned only with what has been best in mankind.

But in time of war they find themselves in a wholly different world—a world of anger, hatred and cruelty; a world of foreboding, fear and despair; a world of selfishness, deception and violated trusts; a world of confusion, shifting values and crumbling ideals. They might hold themselves aloof from the world's woes with the hope that eventually returning peace will enable them to live serene lives again. Or, at the other extreme, they might plunge into the conflict, courting danger with the vague feeling that sacrifice itself is the noblest possible action. Or, choosing a median course, they might stand ready and eager to undertake any task in defense of civilization for which their training and experience have prepared them. As a matter of fact, scientists will pursue all these courses, for outside their specialties their attitudes and actions are generally similar to those of other intelligent members of society.

There is, however, one respect in which the habits of thought of scientists as a class differ substantially from those of other men. From the nature of their training and work they are accustomed to taking the long view, which in nearly every field reaches far back in human history and in some fields back through the geologic ages. They are familiar with and have reflected on the great crises in human affairs, the rise and fall of nations and civilizations, the evolution and disappearance of thousands of species of plants and animals. They are practiced in searching for causes of such changes and in evaluating their consequences. If as a class scientists have any important special competence, apparently it is, or should be, the ability to analyze and interpret present world conditions and to define objectives for which humanity should strive.

If scientists were to enter on such a difficult task as that of defining objectives for mankind, they would find themselves handicapped by relatively limited experience with the varied practical affairs of everyday life. They would think too often of what *should* be instead of what *could* be in the complex relations among imperfect human beings. They probably would not be able to agree among themselves. The task of interpreting the tides that are flowing in the world today and of defining some clear goal toward which all peoples might unitedly strive is clearly too difficult for any special group to undertake with hope of success.

However, scientists might well undertake to evaluate the effects their work has had and is having upon the interrelations among the individuals of every industrialized country, and also among the various nations and peoples of the world. They should not approach this important and difficult task with the intention of boasting of past achievements and of promising greater ones in the future. Instead, they should inquire honestly and fearfully whether they have not unwittingly disturbed an approximate biological and social balance that has been enabling human beings, through "blood, sweat and tears," to struggle from barbarism toward civilization. They should be critical of themselves and generous in their judgments of others, for self criticism is the first step toward self improvement and generosity is always a noble quality. If they find that the present acute diseases of society are directly or indirectly due to the rapid development of science and its applications, they should frankly accept the fact.

Of course, if the distribution of natural resources were more nearly uniform, if social insti-

tutions were perfect, and if human beings were actually only a little lower than angels, then science could not upset the world. But science has suddenly appeared in a world where these ideal conditions do not exist. This world is a deep ocean of imperfections on the surface of which science and its applications are giving rise to what with better perspective would probably be regarded as minor disturbances. Scientists must live in this world and play roles according to their visions and capacities. If they are terrified by the storms now raging on its surface, they yet may find some comfort in the words of Pope in his Essay on Man, for they may contain deep truths that are not ordinarily in our philosophy:

All nature is but art, unknown to thee;
All chance, direction, which thou canst not see;
All discord, harmony not understood;
All partial evil, universal good.

—F. R. M.

The Association Journals

For about 40 years the journal *Science* has been the official journal of the American Association. Without extra payment, each member is entitled to receive its weekly issues throughout the period of his membership. Along with occasional announcements and reports concerning Association affairs, its pages carry short articles, reviews and notes in many different scientific and technological fields. For professional workers in the special sciences, the Association thus provides helpful technical information and stimulation in their respective branches, and furnishes opportunity for timely discussion and criticism. Perhaps the greatest value of *Science*, however, is that it offers a convenient means by which each science specialist may maintain and improve his general acquaintance with current thought in branches of science other than his own.

Besides aiming to disseminate science among scientists, the Association has always aimed also to facilitate the spread of scientific knowledge and appreciation among people in general, most of whom are not expertly competent in any field of science. That majority includes alert young minds that have not yet entered upon their life activities, as well as mature minds that are engaged in the many essential activities that are not embraced in the category of "the sciences." These require the presentation of the subject matter of science in somewhat simplified terms and in more attractive literary style than prevails generally in scientific reports.

Realizing that popular-science reading is of paramount importance, the Association has long sponsored an additional journal, *The Scientific Monthly*, for reading of that kind. In 1909 members were first offered the special elective privilege of receiving the *Popular Science Monthly* on account of their membership, instead of the official journal. Six years later the name of that magazine was changed to *The Scientific Monthly* and under that title it has been continually improved. Since 1927, members of the Association may choose to receive with their membership either *Science* or *The Scientific Monthly*, and any member may receive both journals by paying annually to the Association a special journal fee of $3.00. To nonmembers, the yearly subscription price of *Science* is $6.00; of the *Monthly*, $5.00. At the present time about 13,150 members take *Science* only, about 8,760 take the *Monthly* only, and about 1,000 take both journals.

Until the present year the Association has possessed no means of keeping all of its members in continual touch with the Washington office, since so many of them do not regularly receive the official journal, but that obvious lack is now filled by the recently inaugurated A. A. A. S. Bulletin, which is sent free to every member in good standing. The Bulletin, of which this is the eighth number, carries announcements and brief articles about current Association activities and the relations of the organization to science and to society at large, in what has been aptly called the democratic way of life.

As every one knows, both the official journal *Science* and *The Scientific Monthly* have been brought to high levels of excellence in their respective fields under the efficient management and editorial guidance of Dr. James McKeen Cattell and Mrs. Cattell. For many decades Dr. Cattell has been whole-heartedly devoted to the advancement of science and to the organization of American men and women interested in science, and he had served the A. A. A. S. in many ways, having been chairman of the Executive Committee from 1925 till his recent voluntary retirement from that office. He was President of the Association for the year 1924.

Several years ago Dr. Cattell offered to transfer legal ownership of *Science* and *The Scientific Monthly* to the Association at some future time and his offers were promptly accepted by the Council. Transfer of ownership was accomplished by means of an indenture dated December 12, 1938. Since then both journals have been the property of the American Association for the

Advancement of Science. The indenture of ownership transfer (published in *Science* for March 12, 1941, pages 223–225) included a contract by which it was provided that the journals should continue to be controlled and published by the former owners, James McKeen Cattell and Josephine Owen Cattell, throughout the life of Dr. Cattell or until their voluntary relinquishment of that control to the Association. It was provided further that, in the interim, Dr. Cattell and Mrs. Cattell would supply either *Science* or *The Scientific Monthly,* as designated by the Association, to every association member in good standing, and that the Association would pay them $3.00 annually for each member subscription; also that the Association might secure both journals for any member by making an additional annual payment of the same amount.

An additional provision of the contract stipulated that, after control of either journal should have passed to the Association, the latter would pay each year for ten years to Dr. Cattell and Mrs. Cattell, or to either of them in the event of the other's death, or to the estate of the survivor, a sum equal to one-half of the average of annual excess of publication receipts over publication costs for the five-year period preceding the assumption of control by the Association. Among numerous additional provisions, it was agreed: that the Association should have three-months notice of impending voluntary relinquishment of either journal by the former owners; that current arrangements for editing, publishing and printing should be continued for at least three months after the Association should have assumed control of either journal; that an adjustment of the ten-year payments should be made to care for any depreciation of the purchasing value of the dollar amounting to 10 per cent. or more of its average purchasing value in 1938; and that any disagreement concerning the interpretation and execution of the terms of transfer should be settled by three arbitrators. On December 30, 1938, the Association Council recorded in its minutes a unanimous vote expressing to Dr. Cattell and Mrs. Cattell the Council's appreciation of the fine work they had carried on for many years in editing and publishing the journals and of the recent transfer of them to the Association under most generous terms.

Although the American Association owns *Science* and *The Scientific Monthly,* Dr. Cattell and Mrs. Cattell retain "complete and absolute control of all problems and policies of editing and publication," as well as "all receipts from every source incident" thereto. They receive from the Association $3.00 annually for each member in good standing and an additional $3.00 annually for each member who chooses to receive both journals through the Association. Thus the first provisions of the contract of journal transfer are being fulfilled. Dr. Cattell is still the editor of *Science.* In the editorship of *The Scientific Monthly* Dr. F. R. Moulton, Permanent Secretary of the Association, and Mr. Ware Cattell are associated with Dr. Cattell, and space for the editorial office of that journal is provided by the Association, adjacent to its own rooms in the famous old Smithsonian Institution Building.

On March 30, 1942, the former owners notified the Association that, in accordance with the provisions of the contract of journal transfer, they would voluntarily relinquish control of *The Scientific Monthly* on July 1, or as soon thereafter as would be convenient to the Association. It is probable that the Association will finally assume control of the magazine on January 1, 1943. A statement from Dr. Cattell and Mrs. Cattell, dated March 30, 1942, shows that, according to an audit of a public accountant, the average of the annual profits received by them in publishing *The Scientific Monthly* for the five years 1937–1941 is found to be $1,623.86. Half of that sum, or $811.93, represents what the Association is to pay each year for ten years on account of that journal.

Plans and arrangements for this very important step on the part of the American Association are to be considered by the Executive Committee at its approaching fall meeting and by the Association Council at the time of the next annual meeting of the Association, which is to open at New York City on December 28, 1942.—BURTON E. LIVINGSTON, *Chairman,* Executive Committee, A.A.A.S.

New York Meeting Headquarters Additions and Corrections

Since publication of the hotel headquarters for the New York Meeting in the September number of the A.A.A.S. BULLETIN, the following organizations, together with their hotel headquarters, have been added to the list of societies meeting with the Association on that occasion:

Econometric Society: Governor Clinton Hotel. (Sessions will be held at Columbia University.)

Biometric Section, American Statistical Association: Hotel Commodore.

Phycological Society of America: Hotel Commodore.

Society for Research in Child Development: Pennsylvania Hotel.

Research Council on Problems of Alcohol: Commodore.

Inadvertently the Genetics Society of America was omitted from the list of headquarters published in the BULLETIN for September. This society will have the Hotel Commodore for headquarters and its sessions will be held at Hunter College. The American Society for Horticultural Science will hold its sessions at Hunter College, while the Henry Hudson Hotel will serve as its headquarters.

Other Assignments

Registration: Hotel Pennsylvania and Hotel Commodore.

Exhibits: Hotel Commodore.

General Sessions: Retiring President's address by Dr. Irving Langmuir, General Electric Company, Monday evening, December 28, Ballroom, Waldorf-Astoria Hotel; Sigma Xi Lecture by Dr. John Tate, University of Minnesota, Tuesday evening, December 29, Ballroom, Hotel Pennsylvania; Phi Beta Kappa Lecture, Wednesday evening, December 30, Ballroom, Hotel Pennsylvania.—S. W.

New York Sessions of Section E

The sessions of the Section on Geology and Geography (E) to be held on December 30 and 31 in the American Museum of Natural History will consist of two symposia on timely subjects: The Development of the Humid Tropics with Especial Reference to Latin America, and The Readjustment of Personnel (of Geology and Geography) for War and Post-war Conditions.

The Humid Tropics symposium is in charge of a committee under the chairmanship of John K. Wright, Director of the American Geographical Society, New York. The symposium on Personnel is being planned by a committee headed by G. Marshall Kay, Department of Geology, Columbia University. Papers offered for these programs should be submitted before November 1 accompanied by an abstract of 250 words or less. There will also be both geologic and geographic sessions for the presentation of general papers. —A. C. SWINNERTON, Secretary, Section on Geology and Geography.

Plans of Section K for the New York Meeting

An important aspect of the war effort and one of particular interest to members of the Association is the utilization of scientific personnel. Under the auspices of the Section on Social and Economic Sciences (K), a program is being prepared for the Association at large, reporting on the mobilization of persons with special skills and their placement in the war effort. Although it is not possible at this time to announce definite commitments for the December meeting, the program can be tentatively outlined in terms of the topics to be covered.

1. The utilization of scientists in the British war effort.
2. The work of the Civil Service Commission.
3. The National Roster of Scientific and Specialized Personnel.
4. Deferment practice under Selective Service.
5. The placement of scientific personnel inducted into service.

Several additional topics are to be considered, such as the work of the War Manpower Commission, the Office of Scientific Personnel under the National Research Council, and the Office of Strategic Services. If possible, however, the program will be limited to two sessions of not over two hours each, the intention being to give a rapid survey rather than a treatment in detail. The program is being developed in conjunction with the Committee on Science and Society, whose tentative plans were reported in an earlier number of the BULLETIN.—E. P. HUTCHINSON, Secretary, Section on Social and Economic Sciences.

Meetings Postponed

The Mycological Society of America, by action of its Council, has voted to postpone all its meetings until after the war. This action includes cancellation of the New York meeting which was scheduled to be held with the Association.

Colleges and Universities During the War

In the situation that we find ourselves as a Nation *Education as Usual* is as senseless as *Business as Usual.* The educational institutions want to serve. They want their institutions used by the armed forces, and they have pledged these resources totally to the Nation. But has there not gone along with this pledge and this offer the implication that students would take the usual programs under the regular teachers in perhaps a slightly accelerated form? The form and extent of the resources of the colleges and universities were the determining factors rather than the war plans. . . . What the armed forces, and war production, may I add, need now is to give to the available manpower, training and rather specific training—much of it sub-collegiate in character—rather than general education. Time is of the essence, and general education is a long-time concern.

There is developing a prevailing opinion that colleges and universities are havens for slackers,

safety retreats, and the situation is described by other "odorous" or malodorous words. This is unfortunate for education; it is injurious to the prestige of colleges and is unfair to the great body of American students. The Army and Navy in the past have had some responsibility in this by their promises, or what was understood to be their promises, in connection with the enlisted Reserves. This impresson which has certainly gotten abroad, is found expressed frequently in letters that come to us, and was used recently by a distinguished educator representing the higher institutions of learning as the basis of a plea for a more definite program by the armed forces. A correspondent from California analyzed the situation and diagnosed it in these words: The colleges were college-minded and not war-minded. That is natural, and for normal conditions it would be sound. But in the disturbed conditions is represented a lag, a slowness in readjustments, a persistence of concepts outmoded by pressing social need. They are part of our peacetime outlook with its isolationism, its emphasis on neutrality, nonbelligerency and "everything short of war." War-mindedness, universal war-mindedness by all the population and all the producing and constructive elements of our organized social life, must be our outlook if we are to organize forces located at strategic points that mean victory.

. . . What are the resources of higher institutions of learning? They are twofold, teachers and the physical plant resources of classrooms, shops and laboratories, and particularly dormitories. These are the main resources, particularly if the educational facilities are joined with dormitories. The armed forces have shown a readiness to take over on contract many institutions that have had dormitories and the educational facilities. They will undoubtedly take over others. In much of the educational work of the armed forces, time is of the essence, and necessarily the leisurely processes of education, academic routine, futile lectures, give way to a real life motivation, a genuine achievement test and absorption within a rather narrow gauge. Training is the objective rather than education. For this reason the Army and the Navy themselves must conduct the training or, at least, direct it under rather definite specifications.

Teachers are the other resources of the higher institutions of learning. In any case, the training and skills of the competent ones must be utilized directly in the war effort. Whether their maximum service is at their college post or at a post in one of the armed forces must be determined by the military situation. For the younger men the call to actual military service may, in the rapidly increasing demand of the armed forces, take precedence over the utilization of their recently acquired skills.

At least some of the recent discussions have assumed that students were resources of colleges which could be made available to the armed forces. Young persons, at least over twenty, are just as much the resources of the armed forces as of the college. In the situation we face they belong rather to the armed forces, under the legal liability to military service, than to the colleges. Their justification that they remain in college is that their training will have some definite relation to their service to the Nation in the very near future. The justification for leaving them in college is that their training there is more helpful to the war effort than the service that the armed forces can give them at the time. To leave them in the college to earmark them for future training takes on the atmosphere of what is called in the industrial field "labor storage" and "labor piracy." . . .

This leads us to a subject that has not been clearly faced: The question of officer training. It would seem almost axiomatic that the best training for officers in the armed forces in a situation that confronts us, can be given by the armed forces. In developing the great moral qualities of courage, of fortitude, of daring, of prudence, the barracks are likely to be as effective as the college, and they are not products of intensive courses, nor is this a field in which colleges, generally speaking, are presumed to be specially proficient. Two or three more months in academic routine as organized at present will not seriously affect the intellectual qualities which officers need. Neither semester credits nor degrees have any magic. . . .

What the colleges can do in the recruitment and training of students must be clearer in the light of this discussion of the backgrounds of the problem, as they are related to the central fact of our national policy, and this policy as recently formulated through the War Manpower Commission is: Every able-bodied college student is destined for the armed forces.

This is the keystone of the present national policy. It makes clear the two functions of colleges and universities: (1) To facilitate the entry of college and university students into the armed forces, and (2) to direct and accelerate the training of students in their pre-induction period—to secure the knowledges (a word used by Bacon and Herbert Spencer) and skills and attitudes useful for their service in the armed forces. . . .

The Division of Professional and Technical Personnel of the War Manpower Commission will serve as a clearing house and central agency for the organization of information and the guidance of institutions in their relations with the armed forces and the training of industrial manpower. It is hoped in this way that the competitive recruiting on campuses will give way to an orderly process.

. . . The most practical step is to have on file in Washington with the armed forces themselves, or with the Office of Education, or with the American Council of Education, the available resources in physical plant and personnel of your institution, so that as the need arises the decision can be made [regarding their use] in the light of all facts.

It is true that we must win the war and win the peace, too. We must, however, not permit preoccupation with winning the peace, now, lessen by one day the winning of the war. In our minds, undoubtedly, is the thought that the educational institutions must be conserved for their peacetime functions. This is true. However, the present situation and development may give us the opportunity to reconsider our whole educational problem and make the educational system more serviceable to the new world in the making, phoenixlike, out of this world catastrophe. Perhaps a new education may be essential, and colleges may become colleges, not country clubs or instruments of a miscellaneous mass education; and higher education will be distinguished from the education of adults, and adult education as such will become universal. The old order changeth, giving place to the new, and God fulfills himself in many ways.—Lt. Colonel Edward A. Fitzpatrick, Ph.D., LL.D., Litt.D. (From the program of the National Institute on Education and the War, American University, August 29, 1942.)

Scientists in War Service

Thousands of scientists who are eager to do their part in the present war, either as civilians or in the Army, are still awaiting an opportunity to do so in spite of the fact that the services of most of them are sorely needed. Unfortunately there is as yet no central clearing office at which they may offer their services and be accepted for duties for which they are prepared.

However, the Headquarters, Services of Supply, of the War Department, recommends that those desiring to offer their services to the Army report or write to the Headquarters of the nearest of the nine Service Command Areas, which are:

1. Boston Army Base, Boston, Mass.
2. Governor's Island, New York, N. Y.
3. U. S. Post Office and Court House, Baltimore, Md.
4. Post Office Building, Atlanta, Ga.
5. Fort Hayes, Columbus, Ohio.
6. Post Office Building, Chicago, Ill.
7. New Federal Building, Omaha, Nebr.
8. Fort Sam Houston, San Antonio, Tex.
9. Fort Douglas, Salt Lake City, Utah.

Scholarship and Society

No one, I think—least of all a scientist—will object to the central theme in Dr. Lawrence K. Frank's appeal to scientists to take an active part in social leadership in a world of chaos and war (A.A.A.S. Bull. 1: 42–43). However, this appeal, like so many others voiced recently in *Science* and elsewhere, seems to imply that scientists *alone* have the qualities necessary. Dr. Frank asks, "What other group can we turn to for understanding and leadership, for the unselfish, altruistic, impartial and intelligent study and planning which are urgently needed, which are essential if we are to achieve a social order dedicated to human needs and aspirations?"

The qualities mentioned are indeed the ideals of science—but not of science alone. They are the ideals of scholarship of any kind, of which science is only a part. Having the ideals set forth in Dr. Frank's question does not, in itself, make one a scientist, although none can be a scientist without holding to these ideals in marked degree.

The point I wish to make is that we scientists are all too prone to assume that we constitute the only group which has the insight, sagacity, and ideals to lead the world out of the mess that it is in; whereas the truth is that all who profess scholarship of any kind in any major degree have as keen mentalities, as much sagacity, and the same ideals as scientists. What the world needs is not more science *per se* but more scholarly attitudes among both the general public and the leaders.

Please note that I am not taking issue with Dr. Frank in his main contention: I am merely using his question to point out that in our enthusiasm for things scientific we commonly forget another ideal of science, humility. What society needs is balance and this will never be attained by overemphasis on any one field of human endeavor. The Middle Ages were unbalanced in favor of theology; our present age is unbalanced in favor of technology. An age dominated by science would also be unbalanced; but one dominated by scholarship would not. That is the ideal.—Arthur N. Bragg, University of Oklahoma.

The AAAS-Gibson Island Conferences in 1942

In 1938 the first AAAS-Gibson Island special research conferences were organized by the Section on Chemistry of the Association, of which Dr. Neil E. Gordon has been secretary since 1937. The conferences derive their name from the fact that they are held under the auspices of the Association at Gibson Island, Md., an attractive privately-controlled island of about 1,000 acres in Chesapeake Bay about 20 miles south of Baltimore.

Each conference is devoted to a single subject and continues through a period of five days, from Monday to Friday inclusive, at which from ten to fifteen formal papers are presented by leading specialists in the field under consideration. The participants in these conferences are drawn from both university and industrial laboratories to the advantage of each group.

In 1938 two conferences were held; in 1939, 3; in 1940, 6; in 1941, 8; and in 1942, 10. In spite of the great burdens placed on chemists by the war, more conferences were held during the past summer than in any preceding year and they were as well attended. Several years ago the organizers decided that the conferences would best fulfill their purposes if the participants in each one were limited to approximately 60, and this limit has been generally maintained. For example, there were 594 registrants for the ten conferences that were held during the past summer.

The range of subjects discussed at the AAAS-Gibson Island Conferences is illustrated by those held during the past summer, the titles of which were as follows:

1. Frontiers in Petroleum Chemistry.
2. Catalysis.
3. Relation of Structure to Physiological Action.
4. Organic High Molecular Weight Compounds.
5. Textiles.
6. Vitamins.
7. Corrosion.
8. X-Ray and Electron Diffraction.
9. Chemical Growth Promoters.
10. Instrumentations.

A chairman and a vice chairman are appointed by the Association for each conference on nomination of its organizing committee. Of the chairmen of the ten conferences held during the past summer, three were from university laboratories, one from the National Bureau of Standards, and five from industrial laboratories. Of the ten vice chairmen, four were from university laboratories, four from industrial laboratories, and one vice chairman of two conferences held a university position and was director of research in an industrial laboratory.

Ten AAAS-Gibson Island special research conferences on chemistry have been planned for the summer of 1943. Every one of them is on a subject of importance in the steadily increasing war efforts the country is making.—F. R. M.

Illinois Academy Elects Officers

At the spring meeting of the Illinois State Academy of Science, held at Urbana, Ill., the following officers were elected for the year 1942–43:

President, F. M. Fryxell, Augustana College, Rock Island; *First Vice President,* L. J. Thomas, University of Illinois, Urbana; *Second Vice President,* W. DeRyke, Illinois College, Jacksonville; *Secretary,* R. F. Paton, University of Illinois, Urbana; *Treasurer,* John Voss, Manual Training High School, Peoria; *Chairman for Junior Academy,* Allan R. Moore, Morton High School, Cicero.

The 1943 annual meeting of the Academy will be held at Jacksonville under the joint sponsorship of Illinois College and MacMurray College. Dr. DeRyke, the newly elected Second Vice President, will serve as General Chairman for the meeting.

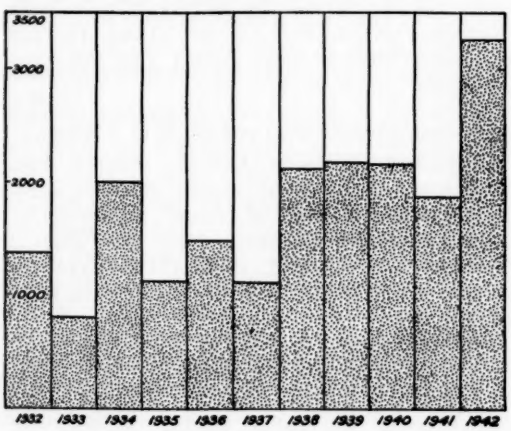
Membership Growth

One method of determining the justification for the existence of an organization, such as the Association, is to examine its membership growth. If the growth is steady and healthy, it may be assumed that the organization is carrying out its objects effectively and efficiently and therefore deserves the support, moral or financial, of those engaged in the field in which the organization operates. Such recognition is shown by not only the addition of new members to the rolls but also by an increasing number of members who maintain continuous membership.

The membership of the Association from 1920 to 1931, inclusive, increased from 11,442 to 19,889, without a net loss in any year. As a matter of fact, for that 11-year period the average per year for gains was 1,635, for losses 867, and for net gains 768. Only in the depression years 1932 to 1935, inclusive, has there been a serious loss in membership. For the four-year period just mentioned the losses by resignations and deaths totaled 7,372. This loss might have been

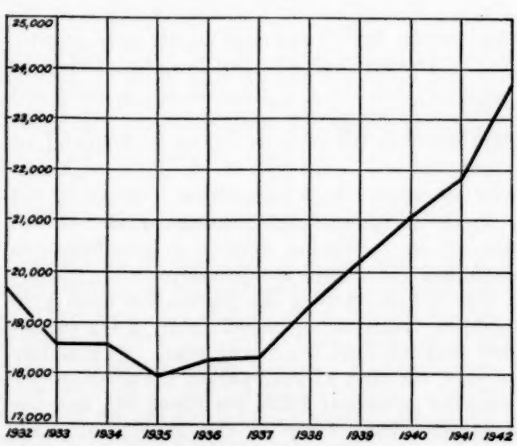
discouraging at the time if it had not been that 5,294 new members were added to the rolls and 126 old members were reinstated, thus resulting in a net loss of only 1,952 for the four-year period.

As may be noted in the accompanying charts, the fiscal year 1942, which closed on September 30, is the most successful one in the history of the Association, as far as membership is concerned. During the year 3,247 new members were enrolled and the total membership at the close of the year was 23,716.—S. W.



NEW MEMBERS

1932	1371	1936	1477	1940	2168
1933	800	1937	1107	1941	1883
1934	2003	1938	2123	1942	3247
1935	1120	1939	2178		



TOTAL MEMBERSHIP

1932	19,665	1936	18,242	1940	21,067
1933	18,549	1937	18,303	1941	21,798
1934	18,553	1938	19,347	1942	23,716
1935	17,937	1939	20,195		

Officers of the Association

President, Arthur H. Compton; *Permanent Secretary,* Forest R. Moulton; *General Secretary,* Otis W. Caldwell; *Treasurer,* C. Carroll Morgan; *Assistant Secretary,* Sam Woodley.

Executive Committee: Burton E. Livingston, *Chairman;* Roger Adams, Joseph W. Barker, Otis W. Caldwell, Walter B. Cannon, J. McKeen Cattell, Roy E. Clausen, Arthur H. Compton, Esmond R. Long, F. R. Moulton, and W. E. Wrather.

Membership in the Association

According to the Constitution, the objects of the Association are to promote intercourse among those who are cultivating science in different parts of America, to cooperate with other scientific societies and institutions, to give a stronger and more general impulse and more systematic direction to scientific research, and to procure for the labors of scientific men increased facilities and a wider usefulness. Members may reside in any country. A person desiring to become a member of the Association should fill in a membership application card that may be obtained from the Office of the Permanent Secretary and return it with his payment of $5.00 for one year's dues. Every member in good standing receives with his membership a subscription for either *Science* or *The Scientific Monthly.* Dues are for the fiscal year that begins October 1; the subscription begins the following calendar year. A member desiring to receive both journals concurrently may do so by paying $3.00 in addition to the regular dues. Members in good standing receive also, without extra charge, subscriptions for the A.A.A.S. BULLETIN, and they may purchase symposia publications at prepublication and post-publication reduced prices.

A person who pays $100 may be elected a life member; sustaining members pay $1,000. Both classes are exempt from the payment of further dues but are entitled to all the privileges of membership.

An incorporated scientific society or institution or a public or incorporated library may become a member by paying the entrance fee of $5.00 in addition to the dues. Such institution members are entitled to the same privileges as individual members.

Members are encouraged to nominate for membership persons who desire to cooperate in carrying out the objects of the Association. Names may be sent to the Office of the Permanent Secretary at any time. In the letter of invitation to become a member of the Association the name of the person making the nomination is ordinarily mentioned.

Changes of Address

New addresses for the Association's records and for mailing the journals *Science* and *The Scientific Monthly,* as well as the A.A.A.S. BULLETIN, should be in the Office of the Permanent Secretary, Washington, D. C., at least two weeks in advance of the date when the change is to become effective.